



#17/appeal  
Brief  
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K. P. P. P.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Edward O. Clapper	§	Group Art Unit:	2673
Serial No.:	09/526,780	§		
Filed:	March 16, 2000	§	Examiner:	Nitin Patel
For:	Controlling Wireless Peripherals for Processor- Based Systems	§	Atty. Dkt. No.:	ITL.0359P1US (P7596X)
Customer No.:	21906	§	Confirmation No.:	1757

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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APPEAL BRIEF

Sir:

Applicants respectfully appeal from the final rejection mailed November 18, 2003.

I. REAL PARTY IN INTEREST

The real party in interest is the assignee Intel Corporation.

II. RELATED APPEALS AND INTERFERENCES

None.

III. STATUS OF THE CLAIMS

Claims 1, 6-10, and 18-20 have been finally rejected and are the subject of this appeal.

Date of Deposit: February 20, 2004  
I hereby certify under 37 CFR 1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated above and is addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.  
*Cynthia L. Hayden*  
Cynthia L. Hayden

#### IV. STATUS OF AMENDMENTS

All amendments have been entered.

#### V. SUMMARY OF THE INVENTION

A wireless peripheral device 10, shown in Figure 1, for use with a processor-based system (not shown in Figure 1) includes at least one keyboard 12 having keys which may be utilized to generate input commands for a processor-based system. The wireless peripheral device 10 may include a first wireless interface 16 and a second wireless interface 18.

Specification, at page 2, line 18 through line 24.

In one embodiment of the present invention, a single keyboard, such as the keyboard 12, may be provided. Operation of the same key may result in the generation of a different command through each interface 16 and 18. In one embodiment of the present invention, each of the interfaces 16 and 18 points more directly at the processor-based system when the device 10 is in an orientation dedicated to a function implemented by a particular interface 16 or 18.

Specification, at page 3, line 1 through line 8.

That is, depending on the orientation of the device 10, one of the interfaces 16 or 18 is pointed at a receiver on a processor-based system and the other of the interfaces is pointed away from the receiver. If the power of the interface is not too great, the signal from the interface pointed directly at the receiver will be recognized by the receiver and the signal from the other interface will be ignored. Specification, at page 3, line 9 through line 16.

The interfaces 16 and 18 advantageously develop signals which are at least 45 degrees apart to avoid simultaneous reception of both signals by the same receiver. Advantageously, the interfaces 16 and 18 are angularly separated by approximately 90 degrees or more.

Specification, at page 3, line 17 through line 21.

In other embodiments of the present invention, two separate keyboards may be provided, for example, on opposite sides of the device 10. Thus, in one embodiment of the present invention, a keyboard 12 may be provided on one side and a keyboard 14 may be provided on the other side. The keyboard 14 may operate the interface 18 and the keyboard 12 may operate the interface 16. Specification, at page 3, line 22 through page 4, line 2.

In one embodiment of the present invention, the device 10 implements the functions of a remote control unit and a keyboard. However, it may also be possible to provide a mouse functionality as well. For example, any combination of a remote control unit, keyboard or mouse functionality may be incorporated on two sides of the device. Alternatively, a third interface may be provided on a separate surface of the device 10. In such case, in one orientation the device acts as a mouse, in another orientation the device acts as a keyboard and in still another orientation the device may act as a remote control unit. Specification, at page 4, line 3 through line 14.

A different set of keys 20 may be provided, in one embodiment of the present invention, to implement each desired functionality. Thus, with the device 10 positioned upside down as shown in Figure 2, the keyboard 14 may be exposed and the interface 18 may be directed towards the controlled processor-based receiver 27. In one embodiment of the present invention, a reduced sized keyboard 14, such as a qwerty keyboard, may be utilized to provide a compact arrangement. Thus, with the device 10 in the orientation shown in Figure 2, keyboard commands, indicated by the signal A, are issued through the interface 18 to the processor-based receiver 27. Specification, at page 4, line 15 through page 5, line 2.

At the same time commands inadvertently entered on the keyboard 12 are developed by the interface 16. However, since the interface 16 is angled away from the receiver 27, they are not received at the receiver 27. Thus, with the keys 20 oriented properly relative to the user, the interface 18 is automatically aligned to control the receiver 27. Conversely, the interface 16, controlled by the keyboard 12 is misaligned relative to the receiver 27. Specification, at page 5, line 3 through line 10.

In the orientation shown in Figure 3, the keyboard 12 is upwardly pointing and the interface 16 is directed toward the processor-based receiver 27. As a result, the signal B issued by the device 10 is detected by the processor-based receiver 27 and is utilized as an input command. Specification, at page 5, line 11 through line 16.

The signal provided by the interface 18 is directed transversely relative to the receiver 27 when the keyboard 12 is oriented properly relative to the user. In such case, the signal from the interface 18 does not control the receiver 27. Specification, at page 5, line 17 through line 21.

The keyboard 12 implementing a remote control unit in one embodiment may include a plurality of numerical keys 26, arrow buttons 22 for moving an on-screen cursor and a selection button 24 situated in between the arrow buttons 22. Other buttons may be provided as well. Specification, at page 5, line 22 through line 26.

Thus, the user can reorient a single device and can thereby automatically obtain two or more functionalities from the same device 10. In some cases, two keyboards may be provided on opposed sides but in other cases, a single keyboard may provide different functionalities depending on its orientation. Specification, at page 6, line 1 through line 6.

## VI. ISSUES

- A. **Is Claim 1 Obvious Over Brusky in View of Bartlett?**
- B. **Is Claim 18 Obvious Over Brusky in View of Bartlett?**

## VII. GROUPING OF THE CLAIMS

Claims 6-10 may be grouped with claim 1.

Claims 19-20 may be grouped with claim 18.

## VIII. ARGUMENT

- A. **Is Claim 1 Obvious Over Brusky in View of Bartlett?**

Claim 1 calls for a wireless peripheral for a receiver comprising a housing; only one keyboard defined on said housing, said keyboard providing different functionalities depending on the orientation of said housing; and a pair of wireless interfaces that transmit wireless signals directed at sufficiently spaced angles with respect to one another to enable said receiver to distinguish one of said signals from the other of said signals.

However, the Brusky reference does not teach generating different commands from wireless interfaces. Bartlett does not teach any wireless signals. Specifically, Brusky does not teach generating a different command through each interface of a pair of wireless interfaces that transmit wireless signals directly at sufficiently spaced angles with respect to one another. In other words, the keyboard may send multiple codes simultaneously out from two or more wireless internet interfaces, for example, IR emitter reports. In this way, no mode switching or

user intervention is required to shift from one mode to another mode for example, a remote mode to keyboard mode. Accordingly, a single remote may be utilized in two or more orientations, presenting different functionality.

In the Bartlett reference, a method is provided for processing an input command for a hand-held computing device such that detecting and executing positional and gesture commands corresponding to movement of the hand-held device are produced. No different commands through each interface of a pair of wireless interfaces result from operation of the key of the keyboard.

Even if combined, the teachings of the Brusky and Barlett references considered either alone or together fail to produce a wireless peripheral as now claimed in claim 1. Therefore, the rejection of claim 1 should be reversed.

**B. Is Claim 18 Obvious Over Brusky in View of Bartlett?**

Claim 18 calls for one keyboard with two functionalities associated with a different orientation of the housing. A pair of wireless interfaces are associated with different ones of the housing orientations. The wireless interfaces are oriented relative to one another to enable the receiver to determine which orientation the housing was in at the time a signal was transmitted.

Brusky fails to teach or suggest that different commands from interfaces are produced, as claimed in claim 18. Instead, in the Brusky reference same wireless interface signals are produced. Thus, there are no signals generated by a pair of wireless interfaces at spaced angles sufficiently enable those commands to be differentiated. In contrast, a single keyboard operates in different functionalities by detecting the orientation of the housing. The Brusky reference does not teach detecting the orientation of the housing in order to determine the functionality of the keyboard.

Therefore, claim 18 patentably distinguishes over the Brusky and Bartlett references.

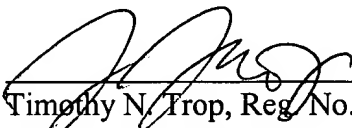


IX. CONCLUSION

Applicant respectfully requests that each of the final rejections be reversed and that the claims subject to this Appeal be allowed to issue.

Respectfully submitted,

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Timothy N. Trop, Reg. No. 28,994  
TROP, PRUNER & HU, P.C.  
8554 Katy Freeway, Suite 100  
Houston, TX 77024-1805  
713/468-8880 [Phone]  
713/468-8883 [Fax]

## APPENDIX OF CLAIMS

1. A wireless peripheral for a receiver comprising:  
a housing;  
only one keyboard defined on said housing, said keyboard providing different functionalities depending on the orientation of said housing; and  
a pair of wireless interfaces that transmit wireless signals directed at sufficiently spaced angles with respect to one another to enable said receiver to distinguish one of said signals from the other of said signals.
6. The peripheral of claim 1 including a controller coupled to said interfaces and said keyboard.
7. The peripheral of claim 6 wherein said wireless interfaces are infrared interfaces.
8. The peripheral of claim 1 wherein said interfaces are angled sufficiently such that only one of said signals is detected by said receiver.
9. The peripheral of claim 8 wherein said interfaces are oriented to generate wireless signals at an angle of greater than 45° from one another.
10. The peripheral of claim 1 wherein said keyboard has at least two different orientations, such that when said keyboard is arranged relative to a user in each of said orientations, a different one of said interfaces is aligned with said receiver.
18. A wireless peripheral for a receiver comprising:  
a housing;  
only one keyboard defined on said housing, said keyboard providing at least two functionalities, each functionality associated with a different orientation of said housing; and  
a pair of wireless interfaces that transmit wireless signals, each of said interfaces associated with a different one of said two orientations of said housing, said wireless interfaces

being oriented relative to one another to enable said receiver to determine which of said orientations said housing was in at the time a signal was transmitted by an interface.

19. The peripheral of claim 18 wherein said interfaces are infrared interfaces.

20. The peripheral of claim 18 wherein said keyboard has at least two different orientations, such that when said keyboard is arranged relative to user in each of said orientations, a different one of said interfaces is aligned with said receiver.